

## CLAIMS

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## What is claimed is:

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a housing;

a mainboard including memory and a first processor mounted

4 within the housing;

> a first network interface having a first network port and a first address connected to the first processor;

7 at least one\expansion slot for receiving a peripheral device: and

8 a network communications link connecting the first network

interface to said at least one expansion slot substantially disposed within

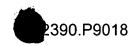
10 the housing,

> wherein the first processor is enabled to communicate with a peripheral device having a build-in network interface by transmitting data via the first network interface and the built-in network interface over the network communications link using a network transmission protocol.

- 2. The apparatus of claim 1, further comprising a second network 1
- interface disposed on the mainboard in proximity to said at least one 2
- 3 expansion slot having a second address and a second network port to
- enable communication between the first processor and a peripheral 4

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interface.



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device that does not include a built-in network interface when the peripheral device is mounted in one of said at least one expansion slots. .

- The apparatus of claim 1, wherein the network communications link complises a network bus embedded in the mainboard.
- 4. The apparatus of claim 1, wherein the first network interface and the communications link comprise an Ethernet subnet.
- 1 5. The apparatus of claim 1, further comprising:
- 2 a second processor; and
- a second network interface connected to the second processor and
  the network communications link to enable communication between the
  second processor and a peripheral device having a built-in network
- 1 6. A system comprising:
- a computing machine including a housing and a mainboard to
- which memory and a first processor are connected, providing a first
- 4 network interface having a first network port and a first address;
- 5 a first peripheral device disposed within the housing;



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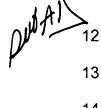
a\second network interface providing a second network port and a second network address linked in communication with the first peripheral device;

- 9 a communications link between the first and second network 10 interfaces substantially disposed within the housing; and
  - software comprising machine instructions that are executable by the first processor that includes a socket application interface (API) that binds the address of the first peripheral device to the second network port and a network interface abstraction layer that provides an abstracted interface that enables an application to communicate with the first peripheral device using a networking protocol.
- 7. The system of claim 6, wherein the communications link and the first and second network interfaces comprise an Ethernet subnet.
- 1 8. The system of claim 6, wherein the communication link 2 comprises a network signal bus built into the mainboard.
- 9. The system of claim 6, wherein the communications link comprises a token ring.
- 1 10. The system of claim 6, wherein the second network interface is 2 built into the first peripheral device;



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- The system of claim 6, wherein the second network interface is built into the mainboard.
- 1 12. The system of claim 6, wherein the peripheral device
- 2 comprises on of a video subsystem, a memory subsystem, a disk
- 3 controller and a\modem.
- 1 13. The system of claim 6, wherein the mainboard further includes 2 a second processor connected to a third network interface having a third
- 3 network address and network port connected to the communications link.
- 1 14. A method for enabling communication between a peripheral device disposed within a computing machine having a processor and an application running on the processor, comprising:
- providing a network interface for each of the processor and the peripheral device;
- providing a communication link between the network interfaces of the processor and the peripheral device;
- 8 creating a network socket for each of the processor and the 9 peripheral device;
- 10 establishing a connection between the processor and the
  11 peripheral device;



generating messages with the application;

transferring the messages between the processor and the peripheral device using a network transmission protocol.

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- 1 16. The method of claim 15, wherein the network transmission
- 2 protocol comprises the TCP/IP protocol.
- 17. The method of claim 15, further comprising applying security
- 2 measures to determine if an application may connect to a particular
- 3 peripheral device.
- 1 18. The method of claim 15, wherein the network transmission
- 2 protocol comprises the UDP protocol.
- 19. The method of claim 15, wherein the communications link and
- 2 the network interfaces comprise an internal Ethernet network.
- 1 20. The method of claim 15, wherein the communications link and
- 2 the network interfaces comprise an internal token ring network.